

OK
to enter
substantive
spec.
JP

WAVEFORM EQUALIZATION CONTROLLER AND WAVEFORM EQUALIZATION CONTROL METHOD

FIELD OF THE INVENTION

The present invention relates to a waveform equalization controller and, more particularly, to a waveform equalization controller for controlling the updating of tap coefficients of a waveform equalizer which reduces transmission line distortion of a digital signal to be used in digital broadcasting.

BACKGROUND OF THE INVENTION

Originally, digital broadcasting was mainly utilized in satellite broadcasting. However, in recent years, there has been a growing tendency of utilizing digitization in terrestrial broadcasting. In the terrestrial broadcasting, the waveform equalization technique for reducing the transmission line distortion is essential. Hereinafter, a prior art waveform equalization controller in the ground wave digital broadcasting will be described by using a DTV (Digital Television) system utilizing an 8-value VSB (Vestigial Side Band) modulation technique adopted in the U.S. as an example.

Figure 19 is a block diagram illustrating a structure of the waveform equalization controller in the DTV system.

In figure 19, the prior art waveform equalization controller comprises a waveform equalizer 101 for receiving an input signal 100S and outputting an output signal 101S which is obtained by subjecting the input signal 100S to waveform equalization, an error estimation unit 1901 for estimating the error of the output signal 101S and outputting an error signal 1901S, and a coefficient updating amount calculation unit 103 for calculating a tap coefficient updating amount 106S based on